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ENVIRONMENT DEPARTMENT

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BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

Certified Mail – Return Receipt Requested

June 19, 2017

Mr. Michael B. Sloane, Chief
Fisheries Management Division
New Mexico Department Game and Fish
1 Wildlife Way
P.O. Box 25112
Santa Fe, New Mexico 87507

RE: New Mexico Department of Game and Fish, Glenwood Fish Hatchery, Minor Non-Municipal, Individual Permit, SIC 0921, NPDES Compliance Evaluation Inspection, NM0030136, May 23, 2017

Dear Mr. Sloane:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

David Long
NPDES Enforcement Coordinator
Environmental Protection Agency, Region 6
NPDES Enforcement Branch (6EN-WM)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Sarah Holcomb
Program Manager
New Mexico Environment Department
Surface Water Quality Bureau (N2050)
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Erin Trujillo at 505-827-0418 or at erin.trujillo@state.nm.us.

Sincerely,

/s/Sarah Holcomb

Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
David Long, USEPA (6EN-WM) by e-mail
David Esparza, USEPA (6EN-WM) by e-mail
Amy Andrews, USEPA (6EN-WM) by e-mail
Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Bill Chavez, NMED District I by e-mail
Heather Timmons, Environmental Compliance Specialist, Fisheries Division NMDGF by e-mail

EPA

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	NPDES	11	12	yr/mo/day	17	18	Inspec. Type	19	Inspector	20	Fac Type
	N	5	NM0030136			170523			C		S		2

Remarks: AQUATIC LIFE PRODUCTION

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 69	70 2	71 N 72	N 73 74	75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
State of New Mexico, Department of Game and Fish, Glenwood Fish Hatchery, approximately 45 miles north of Silver City and 35 miles south of Reserve. Take US 180 to Glenwood, turn north on NM 174, travel 0.10 mile, turn right into hatchery driveway. Catron County	**0930 hrs / 05/23/2017**	**05/01/2013**
	Exit Time/Date: **1150 hrs / 05/23/2017**	Permit Expiration Date: **04/30/2018**

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
-Walter Strain, Assistant Glenwood Hatchery Manager, 575-539-2461
-LoraLee McCormick, Fish Culturist, Glenwood Fish Hatchery, 575-539-2461

Other Facility Data
SIC 0921

Name, Address of Responsible Official/Title/Phone and Fax Number
- Mr. Michael B. Sloane, Chief, Fisheries Management Division, New Mexico Department Game and Fish, 1 Wildlife Way, P.O. Box 25112, Santa Fe, New Mexico 87507 / General 505-476-8000, 505-476-8055

Contacted: Yes [ ] No [*]

OUTFALL 001 / 01B:
Lat 33.32027°
Long -108.88106°

OUTFALL 002:
Lat 33.32029°
Long -108.88023°

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	M	Flow Measurement	S	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	U	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
U	Effluent/Receiving Waters	S	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

See attached checklist and further explanations.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Erin Trujillo, Environmental Scientist ***/s/Erin Trujillo***	**NMED/SWQB/PSRS/505-827-0418**	**06/19/2017**
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Sarah Holcomb, Program Manager ***/s/Sarah Holcomb***	**NMED/SWQB/PSRS/ 505-827-2798**	**06/19/2017**

New Mexico Department Game & Fish – Glenwood Fish Hatchery – May 23, 2017	PERMIT NO. **NM0030136**

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **Additional information or clarification on receiving waters description, flow measurement and future expansion or facility changes for Outfall 002 appears needed.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES.	☐ Y ☐ N ☒ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. **See Further Explanations for description**	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED.	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **NetDMR subscriber agreement was approved. NMED files do not include USEPA approval letter.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	☒ Y ☐ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	☐ S ☒ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING.	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING.	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS. **pH**	☒ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES. **Handwritten pH recordkeeping in Feb 2017**	☐ Y ☒ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. **pH**	☒ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. **pH**	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☒ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **Treatment consists of settling pond before Outfall 001. Facility has alarms for water levels. See Section E, F & G.**

1. TREATMENT UNITS PROPERLY OPERATED.	☐ S ☐ M ☐ U ☒ NA
2. TREATMENT UNITS PROPERLY MAINTAINED. **See Section F Receiving Waters**	☐ S ☐ M ☐ U ☒ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.	☐ S ☐ M ☐ U ☒ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☐ S ☐ M ☐ U ☒ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE.	☐ S ☐ M ☐ U ☒ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **See Section G Laboratory**	☒ S ☐ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. **See Section G Laboratory**	☐ S ☐ M ☐ U ☒ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **Part II.E of Permit Best Management Practices Plan**	☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☒ Y ☐ N ☐ NA

New Mexico Department Game & Fish – Glenwood Fish Hatchery – May 23, 2017	PERMIT NO. **NM0030136**

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **Glenwood Pond at Outfall 001** ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No flow weighted samples required by Permit** ☒ Y ☐ N ☐ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. **No Aluminum data in November 2013** ☐ Y ☒ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. ☒ Y ☐ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required by Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. **TSS. Metals (aluminum) does not require cooling preservation** ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. ☒ Y ☐ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ☐ Y ☐ N ☒ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**)*
DETAILS: **Staff gage and weir has not been checked for accuracy. Levels & distance of gage from weir not checked.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Measurement of head over 36-inch Rectangular Crested Weir**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☐ Y ☐ N ☒ NA

4. CALIBRATION FREQUENCY ADEQUATE. **Not documented** ☐ Y ☒ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. **Not documented** ☐ Y ☒ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **Not documented** ☐ Y ☒ N ☐ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☒ Y ☐ N ☐ NA

6. HEAD MEASURED AT PROPER LOCATION. **Not documented** ☐ Y ☒ N ☐ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**)*
DETAILS: **Contract laboratory not inspected. pH and SS conducted on-site.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES).* **pH and SS** ☒ Y ☐ N ☐ NA

New Mexico Department Game & Fish – Glenwood Fish Hatchery – May 23, 2017	PERMIT NO. **NM0030136**

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. **pH storage solution expired** ☐ S ☒ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **On-site written SOP, but copy of approved methods were not readily available See Further Explanations** ☐ S ☒ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **TSS (1/Qtr) >10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH Buffers 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME	**1) NM Department of Health Scientific Laboratory Division**	**2) Huther & Associates**
LAB ADDRESS	**1101 Camino de Salud NE, Albuquerque, NM 87102, Tel 505-383-9000**	**1156 N. Bonnie Brae, Denton TX 76201, Tel 940-387-1025**
PARAMETERS PERFORMED	**TSS**	**WET**

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
Glenwood Pond above Outfall 001	**None**	**None**	**Cloudy**	**None**	**None**	**Slightly Grey**	**NA**
Outfall 002	**No Discharge**	**No Discharge**	**No Discharge**	**No Discharge**	**No Discharge**	**No Discharge**	**NA**

RECEIVING WATER OBSERVATIONS **Stream source water was also turbid w/grey color. Off-site receiving waters not observed. Unable to observe flow at Outfall 002 (pipe). Outfall 0002 does not discharge to Los Olmos Pond. Glenwood Pond had algal growth. See Further Explanations for pH excursions.**

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____ (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☐ N ☒ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

State of New Mexico, Department of Game and Fish
Glenwood Fish Hatchery
Compliance Evaluation Inspection
NPDES Permit No. NM0030163
May 23, 2017

Further Explanations

Introduction

On May 23, 2017, a Compliance Evaluation Inspection (CEI) was conducted by Erin S. Trujillo, of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the New Mexico Department of Game and Fish, Glenwood Fish Hatchery, Glenwood, New Mexico in Catron County. The hatchery is classified as a minor facility discharger under the federal Clean Water Act, Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit No. NM0030163. The permit authorizes the discharge of hatchery waste water from two outfalls—"Glenwood Pond thence to Whitewater Creek; thence to the San Francisco River from Outfall 001" and "through Outfall 002 to Los Olmos Pond, thence to Whitewater Creek; thence to the San Francisco River." The permittee is authorized to discharge wastewater containing either non-approved Food and Drug Administration drugs, medications or chemicals (DMC), or DMC used in a manner not consistent with FDA approval to the Whitewater Creek, in Segment Number 20.6.4.603, from Outfalls 001 and 002, reported as Outfall 01B.

Glenwood Pond, which is on-site and used as a settling pond, is identified in State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated List as subject to 20.6.4.99 New Mexico Administrative Code (NMAC) perennial surface waters with the following designated uses: warmwater aquatic life, livestock watering, wildlife habitat and primary contact. Glenwood Pond has not been assessed, but is on the NMED SWQB Monitoring, Assessment and Standards Section's monitoring schedule for 2019 (Assessment Unit NM-2303.B_10). The 2016-2018 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated List indicates that both marginal coldwater and warmwater aquatic life are existing uses. Whitewater Creek, from San Francisco River to Whitewater Campground, is subject to 20.6.4.603 NMAC in the San Francisco River Basin and has the following designated uses: domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact. Whitewater Creek from San Francisco River to Whitewater Campground has Total Maximum Daily Loads (TMDLs) for turbidity and chronic aluminum approved by U.S. Environmental Protection Agency (USEPA) on April 12, 2002. The Glenwood Fish Hatchery has a turbidity (as Total Suspended Solid or TSS) waste load allocation of 334.0 lbs/day. Whitewater Creek's chronic dissolved aluminum TMDL did not provide a point source waste load allocation. The 2016-2018 Integrated List/Report indicates that all designated uses except for fish culture are fully supporting. Fish culture had not been assessed.

NMED performs a certain number of CEIs for the USEPA each year. The purpose of this inspection is to provide USEPA with information to evaluate the permittee's compliance with the NPDES permit. This report is based on review of files maintained by the permittee and NMED, on-site observation by NMED personnel, and verbal information provided by the permittee's representatives.

Upon arrival at approximately 0930 hours on the day of the inspection, the inspector made introductions, presented credentials and discussed the purpose of the inspection to Mr. Walter Strain, Assistant Glenwood Hatchery Manager. The inspector and Mr. Strain, later joined by Ms. Loralee McCormick, Fish Culturist, toured the facility. Ms. Trujillo provided a summary of preliminary findings to Mr. Strain and Ms. McCormick at the end of the inspection. The inspector left the facility at approximately 1150 hours on the day of the inspection.

Treatment Scheme

Glenwood Fish Hatchery was built in 1938 and raises only female triploid (sterile) rainbow trout, to be stocked in waters where interbreeding with native fish is not desired. Total yearly rainbow trout harvestable weight is 60,000 pounds (Source: NMDGF 2012 NPDES Application). Construction plans and funding have not been obtained by Permittee, but the fish hatchery eventually will be New Mexico's rearing facility for native Gila trout (Source: http://www.wildlife.state.nm.us/fishing/fish-hatcheries/).

The hatchery gets fresh water to support operations from surface water (Whitewater Creek) and groundwater. The facility's Best Management Practices (BMP) plan states *"Incoming ground water here may run quite low in pH."* Previous CEI reports indicate that approximately 800-900 gallons per minute (gpm) is supplied from a ground water infiltration gallery installed upstream of the hatchery in White Water Creek. An additional 800-900 gpm is supplied from a well (approximately 60 feet deep) installed downstream of the hatchery near the San Francisco River. In addition, approximately 250 gpm is re-circulated from Glenwood Pond. All three of these flows are directed to the above entrance works sump. Most of the flow from the sump is directed to the raceways and hatchery building, but some goes directly into the bypass channel, while approximately 300 gpm is returned to White Water Creek below the infiltration gallery.

All raceways are connected in series and are capable of returning water to the beginning of the process. There is a bypass channel which flows to the Glenwood Pond and then discharges at Outfall 001 to a pond on private adjacent property thence to Whitewater Creek. These ponds may act as settling basins and limit any actual sediment contribution to Whitewater Creek.

In addition to flow from Outfall 001, water from Glenwood Pond near the raceways (described as Outfall 002) or near Outfall 001 can be piped directly to irrigated fields or pasture. A PVC riser pipe exists at the Outfall 002 location described in the permit. The 2013 CEI report states that *"outfall 002 is not regularly utilized and has not discharged since November of 2006."* If no irrigation requirements are needed, the effluent can be directed to Whitewater Creek, which rarely occurs because of the demands for irrigation water.

Daily maximum and long term average flows for Outfall 001 (Outfall 002, if used) were reported as 1.889 and 1.654 MGD, respectively (Source: NMDGF 2012 NPDES Application). The current NPDES permit indicates that a flow of 1.79 MGD was used in determining effluent limitations. Hydrogen peroxide and formaldehyde is stored and used at the hatchery. No non-FDA approved drugs, chemical, or medications are used.

Permit Requirements and Findings

Note: The following sections are arranged according to the format of the enclosed EPA Inspection Checklist rather than being ranked in order of importance.

Section A - Permit Verification - Overall rating of "Satisfactory"

Permit Descriptions/Requirements

Part I.A.2 of the Permit states that the flow sample type is "*Weir*" for Outfall 002.

Part III.A.4 (Standard Conditions, Duty to Reply) states *"the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit."*

Part III.D.9 (Standard Conditions, Reporting Requirements, Other Information) of the Permit states *"Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted*

incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information."

Comments

- Observations and information obtained during this CEI for flow measurements were inconsistent with the permit descriptions as described above. There is no discharge from Outfall 002 to Los Olmos Pond according to permittee representatives. There is no currently installed flow measurement or weir as described in the Part I.A.2 of the Permit for Outfall 002. Discharge at Outfall 002 is described as an emergency discharge in the facility's BMP Plan. Additional information and/or clarification on flow measurement, receiving waters, and future expansion or facility changes (as applicable) should be submitted to USEPA (e.g., renewal application).

Section B - Recordkeeping and Reporting Evaluation - Overall rating of "Marginal"

Permit Requirements/Findings

pH

- Part I.A.1 of the Permit (Limitations and Monitoring Requirements) includes pH. Part III.D.4 (Record Contents) of the Permit requires recordkeeping for both time of sampling and time of measurement.

  A reviewed handwritten pH record (bench sheet) was not complete and inconsistent with typed recordkeeping in February of 2017. See Attachment A. Handwritten records did not include pH start time and the pH start time was different on the typed record. Recording times for pH monitoring is important to document that holding times meet requirements in USEPA approved methods in 40 CFR 136.3 Table II. The holding time for pH is within 15 minutes.

Settleable Solids (SS)

- Part I.A.1 of the Permit requires monitoring and DAILY AVG and DAILY MAX limitations for Settleable Solids of 0.1 ml/L and 0.6 ml/L, respectively. Part I.A.1 also requires the loading reporting (pounds (lb)/Day).

  For Outfall 001, the permittee has reported zero (0) for SS. Standard Methods (SM) 2540-F Settleable Solids states *"The practical lower limit of measurement depends on sample composition and generally is in the range of 0.1 to 1.0 mL/L."* The Permit does not provide Minimum Quantification Levels for solids.

  Additional Information: It is NMED's understanding that USEPA now allows the electronic reporting of less than the detection limits. For example, when no settleable solids are observed after conducting the SM procedure, then less than the detection limit or <0.1 ml/L may be reported and used in loading calculations.

Section D – Self Monitoring - Overall rating of "Unsatisfactory"

Permit Requirments and Findings

- Part I.A.1 of the Permit required monitoring (report only) for aluminum at a frequency of once per quarter until 2 years after the effective date of the permit which was May 1, 2013. According to USEPA's netDMR database, there was no reported aluminum monitoring in the quarter ending September 2013.

Section C - Operations and Maintenance - Overall rating of "Satisfactory"

Permit Requirements

- Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the Permit states:

  The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit….

- Part I.E (Best Management Practices) states:

  The permittee shall continue to maintain and update its Best Management Practices (BMP) Plan that achieves the objectives and the specific requirements listed below. The current plan provided previously shall remain in effect with this permit…elements of the plan…must be maintained in updates as needed….

Comments

The following clarifications to the written BMP plan appear needed:

- Section C of BMP plan states *"Outfall 002…flow measurements will be taken at the weir,"* but where flow measurement would occur is not clear.
- Section E of BMP plan states *"All floating matter is trapped by screens at the ends of each raceway and physically removed from the raceway by an operator and disposed…;"* however, a cleaning frequency was not provided.
- Section F of the BMP plan states "*The settling pond will be cleaned as necessary to ensure proper operation;"* however, a cleaning frequency or triggering event or observation before effluent limits are exceeded is not provided.

Section E - Flow Measurement - Overall rating of "Marginal"

Permit Requirements

- Part I.A.1 Footnote 2 states "Flow will be monitored by measurement of head over the weir." Part III.C.6 (Standard Conditions, Flow Measurements) states:

  Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings

- Calibrations, records of calibrations, and calibration checks are not documented. Issues indicated on the 2011 and 2013 NPDES CEI checklists continue (e.g., staff gage and weir not been checked for accuracy, concrete at weir is spalling, need maintenance/repair, staff gauge appears very close to the exit of the weir…may give false discharge readings, level settling of weir has not been checked). The placement of the head measurement point may be a factor of the head (e.g., Minimum Distance = 3-4 Maximum Head or H). A source of information for weir dimensions is the Isco Open Channel Flow Measurement Handbook.

Section F - Laboratory - Overall rating of "Satisfactory"

Permit Requirements

- Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the Permit states:

  Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.

Findings

- The bottle for pH electrode storage solution was labeled that it had expired in November 2016.
- Copy of approved laboratory methods (pH and SS) were not readily available on site.

Section G - Effluent/Receiving Waters Observations - Overall rating of "Unsatisfactory"

Permit Requirements and Findings

pH

Part I.A.1 (Limitations and Monitoring Requirements) of the permit require a minimum and maximum pH of 6.6 and 8.8 s.u., respectively. Requirements for non-compliance reports (see Standard Conditions Parts III.D.7 and III.D.8) include, but is not limited to, the reporting of steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge. Since the effective date of the current permit, excursions of the minimum and maximum pH limit were reported (See Figure 1). USEPA's NetDMR database indicates excursions for the following months:

May 2013 (6.1 su)
June 2013 (9.1 su)
May 2015 (6.5 su)
March 2015 (6.5 su)
February 2017 (6.3 su)

Figure 1: Reported pH (Source: EPA NetDMR Report)

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Anal
5/1/2013	4/30/2018	GRAB	Twice per Month

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6.6	8.8
DMR Values		
5/31/13	6.14	6.48
6/30/13	6.85	7
7/31/13	8.43	9.05
8/31/13	7.27	7.54
9/30/13	7.19	7.4
10/31/13	6.95	7.02
11/30/13	6.8	6.8
12/31/13	6.62	7
1/31/14	6.93	7.05
2/28/14	6.9	6.96
3/31/14	6.7	7.7
4/30/14	7.62	7.62
5/31/14	7.65	7.82
6/30/14	7.42	7.89
7/31/14	7.34	7.9
8/31/14	6.71	7.02
9/30/14	7.1	7.14
10/31/14	6.96	7.5
11/30/14	7.23	7.5
12/31/14	6.75	7.82
1/31/15	7.8	7.83
2/28/15	6.76	7.43
3/31/15	6.5	7.5
4/30/15	6.7	7.01
5/31/15	6.52	8
6/30/15	6.93	6.97
7/31/15	6.77	7
8/31/15	7.25	7.3
9/30/15	7.62	7.73
10/31/15	7.42	7.8
11/30/15	7.14	7.8
12/31/15	7.56	7.82
1/31/16	6.61	7.8
2/29/16	6.95	7.6
3/31/16	7.41	7.52
4/30/16	7.7	8.5
5/31/16	7.29	8.5
6/30/16	7.02	7.06
7/31/16	6.6	8.5
8/31/16	8.05	8.12
9/30/16	7.3	7.8
10/31/16	7.5	7.5
11/30/16	7.5	7.8
12/31/16	6.8	7.9
1/31/17	7.7	8.6
2/28/17	6.3	8.5
3/31/17	8.01	8.5
4/30/17	Not Received	Not Received

Note: Reported data in red indicate excursion of permit limit.

Attachment A – Recordkeeping February 2017

GLENWOOD STATE FISH HATCHERY

Effluent Compliance Sampling Log

February-17

EPA Lab Code: NM00972

Exact location: Outfall 001, Effluent at Settling Pond (Cold Water)

Date	Daily Samples			2/Month Samples							Quarterly Samples		Duplicate Y/N	Name of Sampler	Name of Analyst
	Daily Flow (MGD)	Flow (gpm)	Weir Measurement (inches)	Total Suspended Solids (mg/L)	Total Suspended Solids (lbs/day)	pH Sampling Time (start)	pH Sampling Time (end)	pH (su)	Exact Sampling Time: Settable Solids	Settable Solids (ml/L)	Aluminum (mg/L)	Aluminum (lbs/day)			
1			3												
2			3												
3			3												
4			3												
5			3												
6			3												
7			3	5			7:47	6.3	8:47	0				HH	HH
8			3												
9			3												
10			3												
11			3												
12			3												
13			3												
14			3												
15			3												
16			3												
17			3												
18			3												
19			3												
20			3												
21			3	5			9:07	8.5		0				HH	HH
22			3												
23			3												
24			3												
25			4												
26			4												
27			5												
28			5												
29	#VALUE!	#VALUE!	x	x	#VALUE!										
30	#VALUE!	#VALUE!	x	x	#VALUE!										
31	#VALUE!	#VALUE!	x	x	#VALUE!										
AVGs	#VALUE!	#VALUE!		#DIV/0!	#VALUE!			#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!			
MAX	#VALUE!	#VALUE!		0.0000	#VALUE!			0.0000		0.0000	0.0000	0.0000			

pH Meter Calibration Date: 2-7-17 Time: 8:42

pH meter adjusted to sample temperature: 53° (data should be within .1 pH unit of last buffer)

First pH buffer used for standardization: 4.00 @ 25°C Meter Reading: 4.02
Date Purchased: 2-16-16 Date opened: 11-7-16 Clarity: good Exp. Date: 11-24-17

Second pH buffer used to check calibration: 7.00 @ 25°C Meter Reading: 7.03
Date Purchased: 2-16-16 Date opened: 11-7-16 Clarity: good Exp. Date: 11-17-17

Third pH buffer used to check calibration: 10.00 @ 25°C Meter Reading: 10.01
Date Purchased: 11-1-16 Date opened: 11-7-16 Clarity: good Exp. Date: 4-11-17

pH Meter Calibration Date: 2-21-17 Time: 8:52

pH meter adjusted to sample temperature: 54° (data shpuld be within .1 pH unit of last buffer)

First pH buffer used for standardization: 4.00 @ 25°C Meter Reading: 4.0
Date Purchased: 2-16-16 Date opened: 11-7-16 Clarity: good Exp. Date: 11-24-17

Second pH buffer used to check calibration: 7.00 @ 25°C Meter Reading: 7.0
Date Purchased: 2-16-16 Date opened: 11-7-16 Clarity: good Exp. Date: 11-17-17

Third pH buffer used to check calibration: 10.00 @ 25°C Meter Reading: 10.0
Date Purchased: 11-1-16 Date opened: 11-7-16 Clarity: good Exp. Date: 4-11-17

Settable solids analysis: Date: 2-7-17 Time start 8:47 Time End: 10:30 (no less than 60 minutes)
Settable solids analysis: Date: 2-21-17 Time start 9:07 Time End 10:00 (no less than 60 minutes)

Duplicate Samples

Date	Time	TSS	pH	SS	Al

Incoming Whitewater

Date	PH

Request ID Sticker #'s

Date	Request ID Sticker # (top left of form)
2-7-16	2498070
2-21-16	2498069

NOTES:

~ Samples of Total Suspended Solids, Settable Solids and pH are grab samples
~ Standard methods for examination of waste water 21st edition, pH {4500-H+B}, temperature (2550), Total Residual Chlorine (4500 - C1G), and settable solids (2540 Fa)
~ Make & Model of pH Meter: Hanna Instruments Waterproof pH Tester (Model # HI98128)
~ Calculation for loading value-Flow {mgd} X Concentration {mgl} X 8 34
~ Aluminum measurements 1/quarter until Q2 2015, twice a year after that until permit term ends

GLENWOOD STATE FISH HATCHERY

Effluent Compliance Sampling Log

February-17

EPA Lab Code: NM00972

Exact location: Outfall 001, Effluent at Settling Pond (Cold Water)

Date	Daily Samples			2/Month Samples							Quarterly Samples		Duplicate Y/N	Name of Sampler	Name of Analyst
	Daily Flow (MGD)	Flow (gpm)	Weir Measurement (inches)	Total Suspended Solids (mg/L)	Total Suspended Solids (lbs/day)	pH Sampling Time (start)	pH Sampling Time (end)	pH (su)	Exact Sampling Time: Settable Solids	Settable Solids (ml/L)	Aluminum (mg/L)	Aluminum (lbs/day)			
1	0.814122	565.36	3.00												
2	0.814122	565.36	3.000												
3	0.814122	565.36	3.000												
4	0.814122	565.36	3.000												
5	0.814122	565.36	3.000												
6	0.814122	565.36	3.000												
7	0.814122	565.36	3.000	5.0000	33.9489	8:47	8:52	6.3000	8:47	0.00					
8	2.901713	2015.08	7.000												
9	2.901713	2015.08	7.000												
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20	0.814122	565.36	3.000												
21	0.814122	565.36	3.000	5.0000	33.9489	9:07	9:12	8.5000	9:07	0.00					
22	0.814122	565.36	3.000												
23	0.814122	565.36	3.000												
24	1.253422	870.43	4.000												
25	1.253422	870.43	4.000												
26	1.751711	1216.47	5.000												
27	1.751711	1216.47	5.000												
28	1.751711	1216.47	5.000												
29	#VALUE!	#VALUE!	x	x	#VALUE!										
30	#VALUE!	#VALUE!	x	x	#VALUE!										
31	#VALUE!	#VALUE!	x	x	#VALUE!										
AVGs	**#VALUE!**	**#VALUE!**		**5.0000**	**#VALUE!**			**7.4000**		**0.0000**	**#DIV/0!**	**#DIV/0!**			
MAX	**#VALUE!**	**#VALUE!**		**5.0000**	**#VALUE!**			**8.5000**		**0.0000**	**0.0000**	**0.0000**			

pH Meter Calibration Date: 2/7/2017 Time: 8:42 AM

pH meter adjusted to sample temperature 53 (data should be within 1 pH unit of last buffer)

First pH buffer used for standardization: **4.00** @ 25°C Meter Reading: 4.02
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/24/2017

Second pH buffer used to check calibration: **7.00** @ 25°C Meter Reading: 7.03
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/17/2017

Third pH buffer used to check calibration: **10.00** @ 25°C Meter Reading: 10.01
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 4/11/2017

pH Meter Calibration Date: 2/21/2017 Time: 8:52 AM

pH meter adjusted to sample temperature 54 (data should be within 1 pH unit of last buffer)

First pH buffer used for standardization: **4.00** @ 25°C Meter Reading: 4.00
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/24/2017

Second pH buffer used to check calibration: **7.00** @ 25°C Meter Reading: 7.10
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/17/2017

Third pH buffer used to check calibration: **10.00** @ 25°C Meter Reading: 10.00
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 4/11/2017

Settable solids analysis: Date: 2/7/17 Time start 8:47 AM Time End: 10:00 AM (no less than 60 minutes)
Settable solids analysis: Date: 2/21/17 Time start 9:07 AM Time End: 10:00 AM (no less than 60 minutes)

Duplicate Samples

Date	Time	TSS	pH	SS	Al

Incoming Whitewater

Date	PH

Request ID Sticker #'s

Date	Request ID Sticker # (top left of form)
2/7/2017	2498070
2/21/2017	2498069

NOTES:
- Samples of Total Suspended Solids, Settable Solids and pH are grab samples.
- Standard methods for examination of waste water 21st edition, pH (4500-H+B), temperature (2550), Total Residual Chlorine (4500 - C1G), and settable solids (2540 Fa)
- Make & Model of pH Meter: Hanna Instruments Waterproof pH Tester (Model # HI98128)
- Calculation for loading value-Flow (mgd) X Concentration (mgl) X 8.34
- Aluminum measurements 1/quarter until Q2 2015, twice a year after that until permit term ends

Attachment B - Photos

NMED/SWQB Official Photograph Log Photo # 1		
Photographer: Erin S. Trujillo	Date: 05/23/2017	Time: 0946 hours
City/County: Glenwood / Catron County		State: New Mexico
Location: NM Game and Fish, Glenwood Fish Hatchery, NPDES Permit No. NM0030163		
Subject: White River source water entering hatchery. Flow had slight turbidity and grey blue color characteristic throughout hatchery.		

D/SWQB Official Photograph Log Photo # 2		
Photographer: Erin S. Trujillo	Date: 05/23/2017	Time: 0956 hours
City/County: Glenwood / Catron County		State: New Mexico
Location: NM Game and Fish, Glenwood Fish Hatchery, NPDES Permit No. NM0030163		
Subject: Flow within raceway		

NMED/SWQB Official Photograph Log Photo # 3		
Photographer: Erin S. Trujillo	Date: 05/23/2017	Time: 1005 hours
City/County: Glenwood / Catron County		State: New Mexico
Location: NM Game and Fish, Glenwood Fish Hatchery, NPDES Permit No. NM0030163		
Subject: Floating algal growth at Outfall 001 weir		

NMED/SWQB Official Photograph Log Photo # 4		
Photographer: Erin S. Trujillo	Date: 05/23/2017	Time: 1007 hours
City/County: Glenwood / Catron County		State: New Mexico
Location: NM Game and Fish, Glenwood Fish Hatchery, NPDES Permit No. NM0030163		
Subject: Staff gage at weir.		

NMED/SWQB Official Photograph Log Photo # 5		
Photographer: Erin S. Trujillo	Date: 05/23/2017	Time: 1007 hours
City/County: Glenwood / Catron County		State: New Mexico
Location: NM Game and Fish, Glenwood Fish Hatchery, NPDES Permit No. NM0030163		
Subject: Arrow points to end of pipe above off-site receiving water after weir shown in previous photos.		

NMED/SWQB Official Photograph Log Photo # 6		
Photographer: Erin S. Trujillo	Date: 05/23/2017	Time: 1011 hours
City/County: Glenwood / Catron County		State: New Mexico
Location: NM Game and Fish, Glenwood Fish Hatchery, NPDES Permit No. NM0030163		
Subject: Standing PVC riser at location of Outfall 002. Pipe is connected to buried irrigation line according to on-site permittee representative.		

Operator or Permittee Response

GOVERNOR
Susana Martinez

DIRECTOR AND SECRETARY
TO THE COMMISSION
Alexandra Sandoval

DEPUTY DIRECTOR
Donald L. Jaramillo

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507

Post Office Box 25112, Santa Fe, NM 87504

Tel: (505) 476-8000 | Fax: (505) 476-8123

For information call: (888) 248-6866

www.wildlife.state.nm.us

July 3, 2017

Ms. Sarah Holcomb
Program Manager
Point Source Regulation Division
New Mexico Environment Department – SWQB
P.O. Box 5469
Santa Fe, NM 87502

Dear Ms. Holcomb:

The New Mexico Department of Game and Fish (NMDGF) has reviewed the NPDES Compliance Evaluation Inspection (CEI) generated on June 19, 2017 from an inspection conducted by Ms. Erin Trujillo of the New Mexico Environment Department (NMED) on behalf of the U. S. Environmental Protection Agency (USEPA) at the Glenwood State Fish Hatchery, NPDES Permit #NM0030136, on May 23, 2017. The following comments are in response to the report.

Treatment Scheme (Page 2)

CORRECTION: The last sentence of the first paragraph states that "Construction plans and funding have not been obtained by Permittee, but the fish hatchery eventually will be New Mexico's rearing facility for native Gila trout". This is an incorrect interpretation. While we are in the early stages of developing a proposal to expand the hatchery in order to increase Gila trout capacity, this has no bearing on rearing Gila trout at the hatchery currently. We have begun collecting eggs from stream spawning to rear at the hatchery and currently plan to raise up to 1,000 pounds of Gila trout. This will continue regardless if we are able to expand the hatchery.

CORRECTION: In the second paragraph of this section water sources and flows are discussed in detail. These details are either incorrect or have been modified since the previous inspections and should be altered to the following (changes in **bold**):

"**between 0 to 1,500** gallons per minute (gpm) is supplied from a ground water infiltration gallery installed upstream of the hatchery in White Water Creek. **Up to 1,100** gpm is supplied from **three** well**s** (approximately 60 feet deep) installed downstream of the hatchery near the San Francisco River. In addition, approximately 250 gpm is recirculated from **the tail end of the raceways**. All three of these flows are directed to the above entrance works sump. Most of the flow from the sump is directed to the raceways and hatchery building, but **up to 500 gpm** goes directly into the bypass channel **and thence to Glenwood Pond or irrigation**."

Section A – Permit Verification (Pages 2 and 3)

Outfall 002 has been out of use since approximately 2006. No water flow is directed towards the pipeline currently and flow would enter this outfall only if it was diverted from Glenwood Pond (Outfall 001) at the collection box below the raceways. Outfall 002 has been kept in place as a permitted outfall in the event that any work at Glenwood Pond (e.g. dredging) requires diverting flow. Should that be necessary, a weir would be constructed to measure flow at Outfall 002 in advance of any discharge. We will make any necessary adjustments to our permit during the upcoming renewal process.

Section B – Record Keeping and Reporting (Page 3)

pH

The electronic worksheet attached to the report was a working file and not the final file, the final electronic bench sheet is attached. We believe the times being entered in the end time being moved to the start time are either transcription errors or record keeping errors made by hatchery staff during testing. Record keeping procedures for pH will be reviewed with hatchery staff.

Settleable Solids

The findings in the report sate that rather than entering a value of 0 ml/L for settleable solids we should be entering a value of <0.1 ml/L on our DMRs and that value should be used for loading calculations. However, we feel this is unreasonable. Due to the relatively small amount of solid waste generated by hatchery operations, the length of time effluent is able to settle in Glenwood Pond and irrigation draws from Glenwood Pond it is highly unlikely that settleable solids are discharged from Outfall 001. Observations of and reports of 0 ml/L have been reported accurately by hatchery staff. We believe that entering NODI code B, no detection/below detection limit, is more appropriate if entering 0 ml/L is not acceptable.

Section D – Self Monitoring (Page 3)

The hatchery was given a rating of 'Unsatisfactory' for missing a single test since the previous inspection in 2013. We feel this is an unreasonable rating due to a single missed test. NMDGF acknowledges that no sample for aluminum was taken for the quarter ending September 2013 due to scheduling confusion and the new permit. The appropriate NODI code (E, Analysis not conducted/No Sample) was entered in the relevant DMR however, while there were internal Department communications regarding the missed test due scheduling errors, these issues were not entered in the notes on the DMR nor can we find any records of notification to NMED or EPA regarding the missed test. No tests have been missed since then and all required tests have been taken and reported appropriately. Additionally, as stated in Part III.C.3 (Retention of Records) records for this test are required to be retained for 3 years following the test. It is fortunate that back up records from 2013, which are no longer kept in files at the hatchery, are available at the Santa Fe headquarters and we are concerned that we are being inspected on records we are no longer required to retain.

Section C – Operation and Maintenance (Page 4)

We will make all adjustments to the BMPs and Hatchery Management Plan requested and submit those changes to NMED and EPA with our permit renewal application later this year.

Section E – Flow Measurement (Page 4)

Materials to repair the issues at Outfall 001 were acquired following the 2013 inspection and stored in the hatchery shop. We have delayed making these changes as there was some concern regarding irrigation drawdowns and bypass flow that can affect flow readings at Glenwood pond. During internal discussions regarding where discharge should be measured during planning for the permit renewal process we have determined to retain the current location for Outfall 001 and will begin repairs as soon as possible.

Section F – Laboratory (Page 5)

Copies of Standard Methods for pH and Settleable Solids are stored in multiple locations for hatchery employees. Electronic copies are stored on department servers accessible to all staff and hard copies are stored with other NPDES files at the hatchery and in the Santa Fe headquarters. Hatchery management will review these locations with hatchery staff and make sure locations are clearly identifiable.

Section G – Effluent/Receiving Waters Observations (Page 5)

A number of dates were entered with pH excursions. With the exception of the exceedance in July 2013 (listed as June 2013 in the report) and March 2015 the remaining three excursions (May 2013, May 2015 and February 2017) are low pH due to low pH from Whitewater Creek source water. Hatchery staff have observed that pH in Whitewater Creek as well as other water quality parameters have declined following the Whitewater-Baldy Complex Fire in 2012 as runoff from the burn scar has brought ash and other mineral runoff into the creek. This issue has been noted in the hatchery BMPs as referenced in the CEI report. When

pH readings fall below our permitted limit hatchery staff check the source pH to verify if that is the cause. When it is it is noted on the bench sheet and was noted on our May 2015 and February 2017 DMRs in the comments.

The July 2013 excursion was due to a data entry error where sampling time was entered rather than the test result. That DMR has been corrected in NetDMR.

Although the low pH reading in March 2015 may have also been due to the low pH of Whitewater Creek, this excursion was believed to be a result of a faulty pH probe due to inconsistent calibration results. Hatchery staff replaced the electrode on the pH probe and this was noted in the comments on the DMR.

As noted above in the response to Section D, in Part III.C.3 (Retention of Records) of the Permit records for this test are required to be retained for 3 years following the test. It is fortunate that back up records from 2013, which are no longer kept in files at the hatchery, are available at the Santa Fe headquarters and we are concerned that we are being inspected on records we are no longer required to retain.

Please feel free to contact Mr. Michael Sloane (email: Michael.Sloane@state.nm.us; phone: (505) 476-8053), Mr. Roddy Gallegos (email: Roddy.Gallegos@state.nm.us; phone: (505) 476-8051) or myself (email: heather.timmons@state.nm.us; phone: (505) 476-8172) if you have any additional questions.

Sincerely,

Heather Timmons
Environmental Compliance Specialist, Fisheries Division

cc:

Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
David Long, USEPA (6EN-WM) by e-mail
David Esparza, USEPA (6EN-WM) by e-mail
Amy Andrews, USEPA (6EN-WM) by e-mail
Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Bill Chavez, NMED District I by e-mail
Michael Sloane, Division Chief – Fisheries Division, NM Department of Game and Fish
Roderick Gallegos, Asst. Chief – Fisheries Division, NM Department of Game and Fish
Glenwood State Fish Hatchery, NM Department of Game and Fish

Encl: Final February 2017 Benchsheet
July 2013 Benchsheet

GLENWOOD STATE FISH HATCHERY

Effluent Compliance Sampling Log

February-17

EPA Lab Code: NM00972

Exact location: Outfall 001, Effluent at Settling Pond (Cold Water)

Date	Daily Samples			2/Month Samples							Quarterly Samples		Duplicate Y/N	Name of Sampler	Name of Analyst
	Daily Flow (MGD)	Flow (gpm)	Weir Measurement (inches)	Total Suspended Solids (mg/L)	Total Suspended Solids (lbs/day)	pH Sampling Time (start)	pH Sampling Time (end)	pH (su)	Exact Sampling Time: Settable Solids	Settable Solids (ml/L)	Aluminum (mg/L)	Aluminum (lbs/day)			
1	0.814122	565.36	3.00												
2	0.814122	565.36	3.000												
3	0.814122	565.36	3.000												
4	0.814122	565.36	3.000												
5	0.814122	565.36	3.000												
6	0.814122	565.36	3.000												
7	0.814122	565.36	3.000	5.0000	33.9489	8:47	8:52	6.3000	8:47	0.00				LH	LH
8	2.901713	2015.08	7.000												
9	2.901713	2015.08	7.000												
10	0.814122	565.36	3.000												
11	0.814122	565.36	3.000												
12	0.814122	565.36	3.000												
13	0.814122	565.36	3.000												
14	0.814122	565.36	3.000												
15	0.814122	565.36	3.000												
16	0.814122	565.36	3.000												
17	0.814122	565.36	3.000												
18	0.814122	565.36	3.000												
19	0.814122	565.36	3.000												
20	0.814122	565.36	3.000												
21	0.814122	565.36	3.000	5.0000	33.9489	9:07	9:12	8.5000	9:07	0.00				LH	LH
22	0.814122	565.36	3.000												
23	0.814122	565.36	3.000												
24	1.253422	870.43	4.000												
25	1.253422	870.43	4.000												
26	1.751711	1216.47	5.000												
27	1.751711	1216.47	5.000												
28	1.751711	1216.47	5.000												
29															
30															
31															
AVGs	**1.0951**	**760.4651**		**5.0000**	**33.9489**			**7.4000**		**0.0000**	**#DIV/0!**	**#DIV/0!**			
MAX	**2.9017**	**2015.078**		**5.0000**	**33.9489**			**8.5000**		**0.0000**	**0.0000**	**0.0000**			

pH Meter Calibration Date: 2/7/2017 Time: 8:42 AM

pH meter adjusted to sample temperature: 53 (data should be within .1 pH unit of last buffer)

First pH buffer used for standardization: **4.00** @ 25°C Meter Reading: 4.02
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/24/2017

Second pH buffer used to check calibration: **7.00** @ 25°C Meter Reading: 7.03
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/17/2017

Third pH buffer used to check calibration: **10.00** @ 25°C Meter Reading: 10.01
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 4/11/2017

pH Meter Calibration Date: 2/21/2017 Time: 8:52 AM

pH meter adjusted to sample temperature: 54 (data should be within .1 pH unit of last buffer)

First pH buffer used for standardization: **4.00** @ 25°C Meter Reading: 4.00
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/24/2017

Second pH buffer used to check calibration: **7.00** @ 25°C Meter Reading: 7.10
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 11/17/2017

Third pH buffer used to check calibration: **10.00** @ 25°C Meter Reading: 10.00
Date Purchased: 2/16/2016 Date opened: 11/7/2016 Clarity: good Exp. Date: 4/11/2017

Settable solids analysis: Date: 2/7/17 Time start 8:47 AM Time End: 10:00 AM (no less than 60 minutes)
Settable solids analysis: Date: 2/21/17 Time start 9:07 AM Time End: 10:00 AM (no less than 60 minutes)

Duplicate Samples

Date	Time	TSS	pH	SS	Al

Incoming Whitewater

Date	PH

Request ID Sticker #'s

Date	Request ID Sticker # (top left of form)
2/7/2017	2498070
2/21/2017	2498069

NOTES:

~ Samples of Total Suspended Solids, Settable Solids and pH are grab samples.
~ Standard methods for examination of waste water 21st edition, pH {4500-H+B}, temperature (2550), Total Residual Chlorine (4500 - C1G), and settable solids (2540 Fa)
~ Make & Model of pH Meter: Hanna Instruments Waterproof pH Tester (Model # HI98128)
~ Calculation for loading value-Flow {mgd} X Concentration {mgl} X 8.34
~ Aluminum measurements 1/quarter until Q2 2015, twice a year after that until permit term ends

Effluent Compliance Sampling Log

Jul-13

Exact location : Effluent at Settling pond (cold water)

Toxicity test (Ceriodaphnia dubia) Once every year between april 1st and june 30th (grab)

Toxicity test (Pimephales promelas) Once every year between april 1st and june 30th (grab)

Standard methods for the examination of waste water 20th edition, Ph (4500-H+B), temp (2550), and s.solids (2540 Fa)
make and model of ph meter- Hanna pHep
ph twice a month (grab) at least ten days apart. Flow once per day at weir collection
TSS twice a month (grab) at least ten days apart. Settable solids twice a month (grab) at least ten days apart.

	Outfall 001 Settling Pond									
				TSS		pH 2/Month		Settleable Solids 2/Month		
Date	daily flow Mil. Gal.	Daily flow In	Flow GPM	SLD Result	2/m TSS	Exact Sample Time	Result	Exact Sample Time	Result	Name of sampler
1	0.8141	3	565							
2	0.8141	3	565							
3	0.8141	3	565							
4	0.8141	3	565							
5	0.1567	1	109							
6	0.1567	1	109							
7	0.1018	0.75	71							
8	0.1567	1	109							
9	0.1808	1.1	126	3	4.5226	8:43	6.93	8:43	0	LM
10	0.1808	1.1	126							
11	0.4432	2	308							
12	0.4768	2.1	331							
13	0.4768	2.1	331							
14	0.3473	1.7	241							
15	0.4103	1.9	285							
16	0.5113	2.2	355							
17	0.5113	2.2	355							
18	0.4432	2	308							
19	0.4432	2	308							
20	0.6193	2.5	430							
21	0.6193	2.5	430							
22	0.6193	2.5	430	3	15.4955	9:05	7.33	9:05	0.01	LM
22				3						LM
23	0.6193	2.5	430							
24	0.6951	2.7	483							
25	0.7341	2.8	510							
26	0.7738	2.9	537							
27	0.8552	3.1	594							
28	0.9392	3.3	652							
29	1.0259	3.5	712							
30	1.0259	3.5	712							
31	1.0702	3.6	743							
Average	0.56	2.27	388.4134	3.00	10.0090		7.1300		0.0050	

note: samples for ph, and seattable solids, are grab samples.
note: samples for total suspended solids are grab samples

Ph meter calibration

Date 7/9/2013 Time 8:39 Date 7/9/2013 Exact time of analysis pH 8:51

ph meter adjusted to sample temperature F

first ph buffer used for standardization 4.0 meter reading

date purchased 11/1/2012 date opened 6/5/2013 clarity Good Exp. Date 8/24/2014

second ph buffer used for standardization 7.0 meter reading

date purchased 11/1/2012 date opened 6/5/2013 clarity Good Exp. Date 8/31/2014

Third buffer used to check calibration: 10.0 meter reading

date purchased 11/1/2012 date opened 4/22/2013 clarity Good Exp. Date 7/11/2013

Date 7/22/2013 Time 9:00 Date 7/22/2013 Exact time of analysis pH 9:10

ph meter adjusted to sample temperature 62 F

first ph buffer used for standardization 4.0 meter reading 4.09

date purchased 11/1/2012 date opened 6/5/2013 clarity Good Exp. Date 8/24/2014

second ph buffer used for standardization 7.0 meter reading 7.05

date purchased 11/1/2012 date opened 6/5/2013 clarity Good Exp. Date 8/31/2014

Third buffer used to check calibration: 10.0 meter reading 10.00

date purchased 11/1/2012 date opened 4/22/2013 clarity Good Exp. Date 7/11/2013

(data should be within .1 pH unit of last buffer)

Seattable solids analysis time start 8:51 time end 9:51 Date 7/9/2013 (no less than 60 minutes)

Seattable solids analysis time start 9:10 time end 10:10 Date 7/22/2013 (no less than 60 minutes)